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January 28, 2004

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APPLICATION NUMBER: 60/439,425

FILING DATE: *January 13, 2003*

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Certifying Officer

PROVISIONAL APPLICATION FOR PATENT COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53(c).

Express Mail Label No.

01/13/03



INVENTOR(S)					
Given Name (first and middle (if any))		Family Name or Surname		Residence (City and either State or Foreign Country)	
Eitan		LEIBOVITZ		Even Yehuda, ISRAEL	
<input type="checkbox"/> Additional inventors are being named on the _____ separately numbered sheets attached hereto					
TITLE OF THE INVENTION (500 characters max)					
SYSTEM FOR CONTROLLED RELEASE OF CEMENT MIXTURE FROM A SUSPENDED BUCKET					
Direct all correspondence to: CORRESPONDENCE ADDRESS					
<input checked="" type="checkbox"/> Customer Number		021884		Place Customer Number Bar Code Label here	
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ENCLOSED APPLICATION PARTS (check all that apply)					
<input checked="" type="checkbox"/> Specification Number of Pages		3		<input type="checkbox"/> CD(s), Number	
<input checked="" type="checkbox"/> Drawing(s) Number of Sheets		3		<input type="checkbox"/> Other (specify)	
<input type="checkbox"/> Application Data Sheet. See 37 CFR 1.76					
METHOD OF PAYMENT OF FILING FEES FOR THIS PROVISIONAL APPLICATION FOR PATENT					
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27.				FILING FEE AMOUNT (\$)	
<input checked="" type="checkbox"/> A check or money order is enclosed to cover the filing fees					
<input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge filing fees or credit any overpayment to Deposit Account Number:		01-2221		\$80.00	
<input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.					
The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.					
<input checked="" type="checkbox"/> No.					
<input type="checkbox"/> Yes, the name of the U.S. Government agency and the Government contract number are: _____					

Respectfully submitted,

SIGNATURE

John L. Welsh

TYPED or PRINTED NAME John L. Welsh

TELEPHONE 703-920-1122

Date 01/13/2003

REGISTRATION NO.
(if appropriate)
Docket Number:

33,621

TSI-043

USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT

This collection of information is required by 37 CFR 1.51. The information is used by the public to file (and by the PTO to process) a provisional application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 8 hours to complete, including gathering, preparing, and submitting the complete provisional application to the PTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Box Provisional Application, Assistant Commissioner for Patents, Washington, D.C. 20231.

**SYSTEM FOR CONTROLLED RELEASE OF CEMENT MIXTURE FROM A
SUSPENDED BUCKET**

5

FIELD OF THE INVENTION

The present invention relates to handling and utilization of cement buckets suspended from cranes.

10

BACKGROUND OF THE INVENTION

Concrete buckets suspended from cranes are used to distribute flowable concrete into pre – formed forms of a building project. Several operators are needed to direct the bucket to a convenient position above the form, to
15 release the concrete from the bucket and to distribute discharged concrete. Pouring concrete efficiently and safely from suspended concrete buckets is a crucial task in a building project.

20

DESCRIPTION OF THE PRESENT INVENTION

In accordance with the present invention, cement is released gravitationally from a suspended cement bucket by the opening of a shutter at the bottom of the bucket. Opening of the bucket outlet is performed by an operator pulling a rope, the length of which is not limited. To explain the mechanism of the release of cement, reference is made now to **Fig. 1**. To bucket **10** is appended a construction frame **12**. A hose **14** at the bottom of the bucket **10** receives the concrete when shutter **16** is opened. In the figure the shutter is partially opened, showing the aperture **18**. Handle **20** is pulled by an operator (not shown) through manipulation of the rope **22**. Spring **24** biases the handle **20** and the shutter **16** towards the bucket **10**. A second operator manipulates the flexible hose **14**, when the shutter is opened, for distributing the flowing concrete. This can however be done by the same operator opening the shutter. In **Fig. 2** the handle **20** has been released by the operator, by loosening the rope **22**. The spring **24** has contracted shutting off the shutter **16**. Concrete can no longer flow of the bucket **10**.

The main structural features of a shutter of the invention are shown in **Fig. 3**. Shutter **40** is slidable by wheels **42** attached at its both flanks (only the wheels at one flank are shown). The wheels roll on rails **44**. In **Fig. 4** the shutter is shown opened, revealing hose flange **50** of the hose described above. At this state, concrete pouring down from the concrete bucket in the direction of arrow **52** can flow downwards through the hose. The shutter **40** closes by pushing in the direction of arrow **54**.

CLAIM

A suspended concrete bucket comprising a bottom shutter for releasing flowable concrete gravitationally, and wherein said shutter is opened by an operator pulling a rope, and wherein said shutter is biased towards a
5 closed position by a spring.

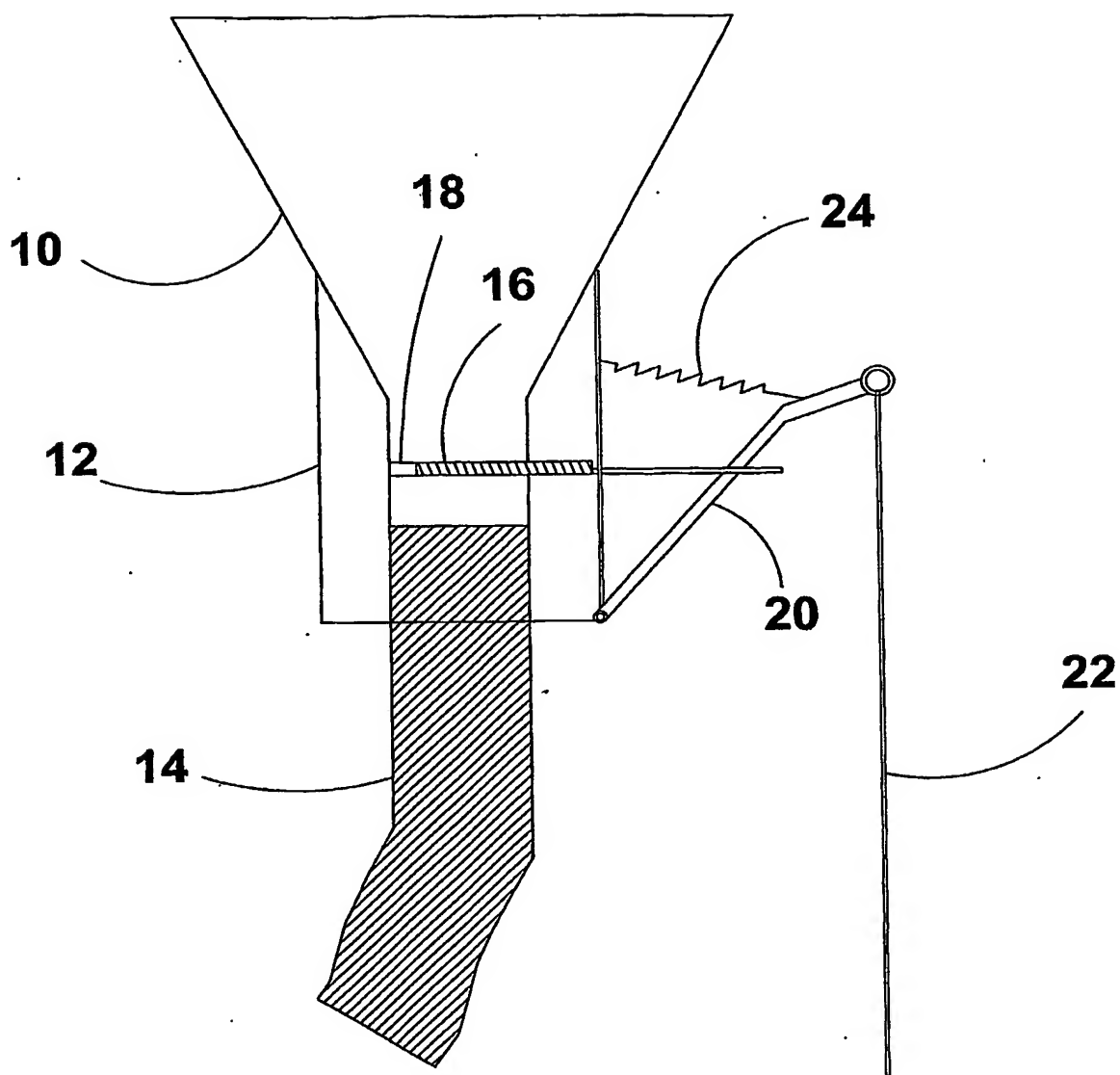


Fig. 1

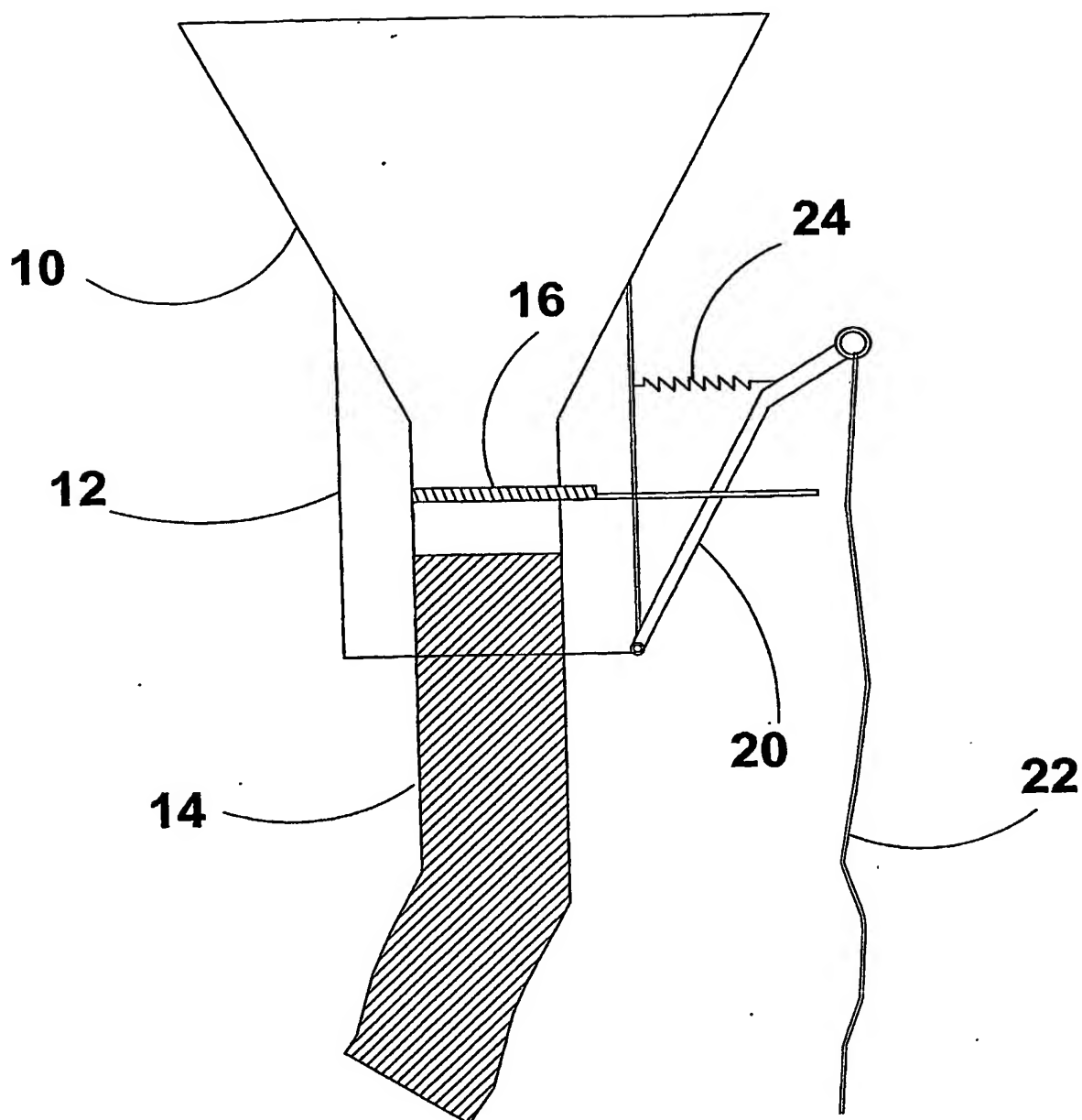


Fig. 2

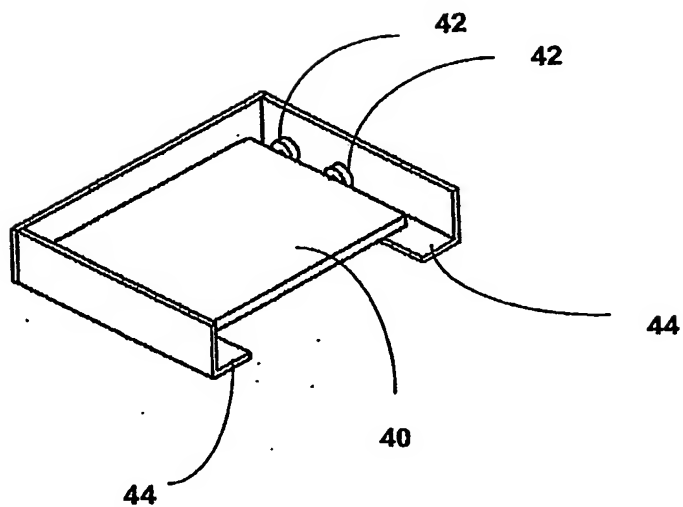


Fig. 3

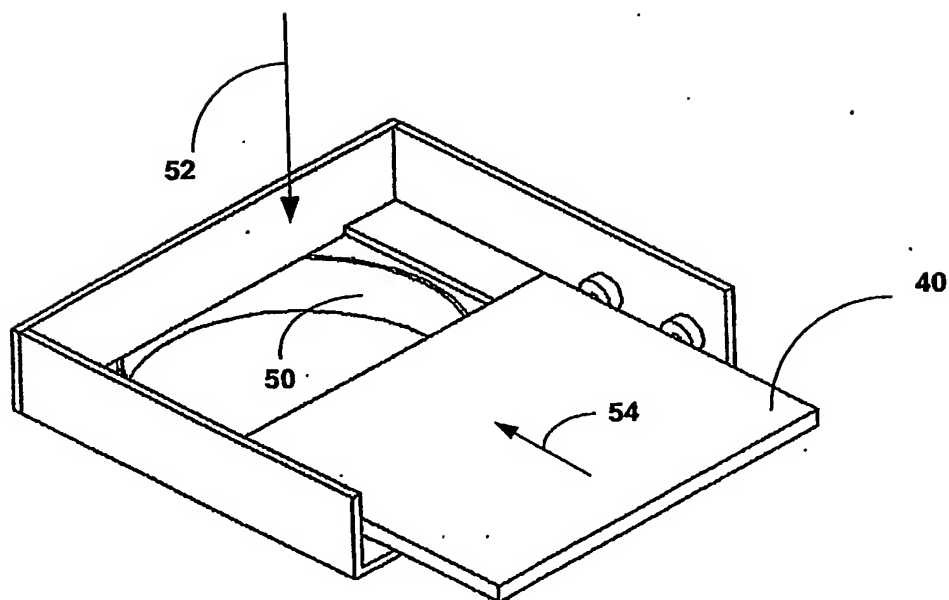


Fig. 4